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HEWLETT-PACKARD COMPANY
Intellectual Property Administration
P.O. Box 272400
Fort Collins, CO 80527-2400

EXAMINER	
CRAIG, DWIN M	

ART UNIT	PAPER NUMBER
2123	

DATE MAILED: 08/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/927,156	ALGIERI ET AL.	
	Examiner	Art Unit	
	Dwin M. Craig	2123	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on 6/9/06.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-24 and 26-31 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-24 and 26-31 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-24 and 26-31 have been presented for reconsideration in view of Applicants' arguments and amended claim language.

Response to Arguments

2. Applicant's arguments, see pages 7-12, filed 6/9/06, with respect to the rejection(s) of claim(s) 1-3, 6-14, 17-24 and 28-31 under 35 USC § 103(a) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of US Patent 6,086,618 Al-Hilali.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-5, 10-16, 21-24, 26 and 27 are rejected under 35 USC § 102(b) as being anticipated by US Patent 6,086,618 *Al-Hilali.*

3.1 As regards independent claim 1, *Al-Hilali* discloses, *A method of assigning resources for a computer system design comprising: receiving desired levels of performance parameters for a computer system design from a user via a user interface* (Figure 2 and Col. 5 lines 55-67 and Col. 6 lines 1-28) *to a computer system, the design including assignments of system resources to applications;* (Col. 3 line 16 "desirable performance level" and Figures 1-7 and Col. 10 lines 49-

60), *modifying the design in response to said desired levels including modifying the assignment of resources;* (Table 3 and Col. 16 lines 13-29), *predicting levels of performance parameters for the modified design;* (Figure 4 reference 110 and Col. 4 lines 38-45 and Col. 11 lines 23-35 *"anticipated demand"* is the same as prediction), *displaying for the user an indication of the predicted levels of performance parameters for the modified design via the user interface* (Figure 1 reference 47 and Col. 10 lines 49-60 and Figure 7 reference 158).

3.2 As regards dependent claim 2 *Al-Hilali* discloses *a computer system design comprises a data storage system* (Figure 3 reference 88 and Col. 17 lines 42-67).

3.3 As regards dependent claim 3 *Al-Hilali* discloses *reducing one or more of the performance parameters from the desired levels of performance parameters* (Col. 16 lines 1-20 and TABLE 3).

3.4 As regards dependent claim 4 *Al-Hilali* discloses *reducing based on at least one utility function representing utility as a function of one or more of the performance parameters* (see the description of then resource usage monitor Col. 9 lines 10-20).

3.5 As regards dependent claim 5 *Al-Hilali* discloses *receiving the at least one utility function via the user interface to the computer system; and storing the at least one utility function in a memory device if the computer system.* (Figure 1 and Col. 10 lines 49-60).

3.6 As regards independent claim 10, *Al-Hilali* discloses, *a method of assigning resources for a computer system design comprising: receiving levels of performance parameters for a computer system design from a user via a user interface to a computer system;* (Col. 3 line 16 "desirable performance level" and Figures 1-7 and Col. 10 lines 49-60 and Col. 11 lines 23-35), *developing the design including assignments of system resources to applications;* (Col. 9 lines

24-30 "in order to determine which transactions to generate for creating a desired load on the instrumented application"), *predicting levels of performance parameters for the design* (TABLE 3), *comparing the predicted levels of performance parameters to the desired levels of performance parameters* (Table 3 and Col. 3 line 16 "desirable performance level"), *modifying the design including modifying the assignments of the system resources when the predicted levels are lower than the desired levels, said modifying being performed by the computer system;* (Table 3 and Co. 15 lines 23-67 and Col. 16 lines 13-40 and Table 4 and Table 5 and Col. 16 lines 66-67 and Col. 17 and Col. 18 and Col. 19 lines 1-6) *and displaying for the user results of the modifying via the user interface* (Figure 1 reference 47 and Col. 8 lines 22-26 and Col. 10 lines 49-60 and Figure 7 reference 158 and Col. 5 lines 55-67 and Col. 6 lines 1-28).

3.7 As regards dependent claim 11 *Al-Hilali* discloses, *wherein the computer design comprises a design for a data storage system* (Figure 3 reference 88 and Col. 17 lines 42-67).

3.8 As regards dependent claim 12 *Al-Hilali* discloses, *wherein said developing comprises assigning system resources to applications to be served by the design* (Col. 2 lines 46-53).

3.9 As regards dependent claim 13 *Al-Hilali* discloses, *said assigning being performed by a design tool operating on the computer system* (Figures 1, 4, 5 & 7 and Col. 6 lines 20-26 and Col. 14 lines 46-54).

3.10 As regards dependent claim 14 *Al-Hilali* discloses, *further comprising reducing one or more of the performance parameters from said levels of performance parameters* (TABLE 3 note the decrease in the Logon/Quits per Second column in the table, here the parameter is being decreased).

3.11 As regards dependent claim 15 *Al-Hilali* discloses, *wherein said reducing is based on at least one utility function representing utility as a function of one or more of the performance parameters* (Col. 15 lines 23-33).

3.12 As regards dependent claim 16 *Al-Hilali* discloses, *further comprising receiving the at least one utility function via the user interface to the computer system* (Figure 7 reference 158 and Col. 10 lines 49-60).

3.13 As regards dependent claim 21 *Al-Hilali* discloses, *repeating said steps of predicting and comparing after said modifying* (TABLE 3 notice the different tests with a different number of clients).

3.15 As regards dependent claim 22 *Al-Hilali* discloses, *wherein when the predicted levels are lower than the desired levels after said modifying then notifying the user* (Col. 14 lines 55-54 and Col. 10 lines 49-60 and Figure 7 reference 158).

3.16 As regards independent claim 23 *Al-Hilali* discloses, *an apparatus for assigning resources for a computer system design, comprising a computer system* (Figure 1) *programmed to operate in a first program loop in which a user specifies desired levels of performance parameters of the design via a user interface* (Col. 6 lines 50-67 note line 56, "program modules include routines, programs objects components, data structures, etc. that perform particular tasks or implement particular abstract data types,..." and Col. 3 line 16 "desirable performance level" and Figure 4 & 5, and Col. 3 lines 34-35 and Col. 4 lines 37-45 and Col. 5 lines 55-67 and Col. 6 lines 1-28), *and a second program loop* (Col. 6 lines 50-67 note line 56, "program modules include routines *as is multiple loops*, programs objects components, data structures, etc. that perform particular tasks or implement particular abstract data types,...") *in which: performance*

parameter levels are predicted for the design; the predicted performance parameters are compared (TABLE 3) *to the desired levels of performance parameters;* (Col. 3 line 16 "desirable performance level") *the design is modified, including modifying assignments of systems resources to applications* (Col. 6 lines 11-19 and Col. 5 lines 22-30 and Col. 7 lines 43-53 and Col. 8 lines 22-26 and Col. 9 lines 13-45 and Col. 10 lines 22-34 and Col. 10 lines 48-60 and Col. 11 lines 8-61 and Col. 14 lines 46-54 and Col. 15 lines 23-47 and Col. 16 lines 13-20), *in response to the comparison and results of the modifying displayed for the user via the user interface* (Figure 1 reference 47 and Col. 8 lines 22-26 and Col. 10 lines 49-60 and Figure 7 reference 158 and Col. 5 lines 55-67 and Col. 6 lines 1-28).

3.17 As regards dependent claim 24 *Al-Hilali* discloses, *wherein the computer system design comprises a design for a data storage system* (Col. 15 lines 46-49 and Col. 17 lines 41-67).

3.18 As regards dependent claim 26 *Al-Hilali* discloses, *wherein one or more of the performance parameters is reduced from said desired levels of performance parameters based on at least one utility function representing as a function of one or more of the performance parameters* (Col. 15 lines 23-33).

3.19 As regards dependent claim 27 *Al-Hilali* discloses, *wherein the at least one utility function is specified by the user* (Figure 7 reference 158 and Col. 10 lines 49-60).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* v. *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Dependent claims 6-9, 17-20 and 28-31 are rejected under 35 USC § 103(a) as being unpatentable over US Patent 6,086,618 *Al-Hilali* in view of US Patent 6,487,562 *Mason*.

4.1 As regards dependent claim 6 *Al-Hilali* does not expressly disclose, *wherein the desired levels of performance parameters are specified by the user through a graphical user interface.*

Mason discloses, *wherein the desired levels of performance parameters are specified by the user through a graphical user interface* (Col. 2 lines 22-31, 58-67 and Col. 3 lines 1-2 and Col. 5 lines 32-64).

Al-Hilali and *Mason* are analogous art because they are both from the similar problem solving area of performance estimation of computer systems.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to have used a GUI to input parameters into a performance estimation system and then view the results changing parameters in the simulated model of the system using the same GUI.

The motivation for doing so would have been, to provide an easy to use and easy to manipulate user interface to a user so that changes to the system being modeled can be seen quickly (see *Mason* Col. 2 lines 22-31 and Col. 2 lines 32-67 and Col. 3 lines 1-3). It is also noted by the Examiner that at the time of Applicants' invention Graphical User Interfaces and displaying Bar Charts are well known in the computer art.

Therefore, it would have been obvious to combine *Al-Hilali* with *Mason* to obtain the invention as specified in claims 6-9, 17-20 and 28-31.

4.2 As regards dependent claim 7 *Al-Hilali* does not expressly disclose *wherein the desired levels if performance parameters are specified by the user through a graphical user interface by the user manipulating heights of bar graphs shown on the display of the computer system* but *Mason* does disclose *wherein the desired levels if performance parameters are specified by the user through a graphical user interface by the user manipulating heights of bar graphs shown on the display of the computer system* (Col. 2 lines 22-31 and Col. 2 lines 32-67 and Col. 3 lines 1-3).

4.3 As regards dependent claim 8 *Al-Hilali* does not expressly disclose *wherein each bar graph indicates the corresponding level of the performance parameter* but *Mason* does disclose,

wherein each bar graph indicates the corresponding level of the performance parameter (Col. 2 lines 22-31 and Col. 2 lines 32-67 and Col. 3 lines 1-3).

4.4 As regards dependent claim 9 *Al-Hilali* does not expressly disclose *wherein each bar graph also indicates the corresponding predicted level of the performance parameter* but *Mason* does disclose, *wherein each bar graph also indicates the corresponding predicted level of the performance parameter* (Col. 2 lines 22-31 and Col. 2 lines 32-67 and Col. 3 lines 1-3).

4.5 As regards dependent claim 17 *Al-Hilali* does not expressly disclose *wherein the user interface is a graphical user interface* but *Mason* does disclose, *wherein the user interface is a graphical user interface* (Col. 2 lines 22-31 and Col. 2 lines 32-67 and Col. 3 lines 1-3).

4.6 As regards dependent claim 18 *Al-Hilali* does disclose *wherein the desired levels of performance parameters are specified by the user* (Col. 3 line 16 "desirable performance level"), however *Al-Hilali* does not expressly disclose, *through a graphical user interface by the user manipulating heights of bar graphs shown on a display of the computer system. Mason* discloses, *a graphical user interface by the user manipulating heights of bar graphs shown on a display of the computer system* (Col. 2 lines 22-31 and Col. 2 lines 32-67 and Col. 3 lines 1-3).

4.7 As regards dependent claim 19, *Al-Hilali* does not expressly disclose, *wherein each bar graph indicates the desired level of the corresponding performance parameter* however, *Mason* discloses *wherein each bar graph indicates the desired level of the corresponding performance parameter* (Col. 2 lines 22-31 and Col. 2 lines 32-67 and Col. 3 lines 1-3).

4.8 As regards dependent claim 20, *Al-Hilali* does not expressly disclose, *wherein each bar graph also indicates the predicted level of corresponding performance parameter* however,

Mason discloses *wherein each bar graph also indicates the predicted level of corresponding performance parameter* (Col. 2 lines 22-31 and Col. 2 lines 32-67 and Col. 3 lines 1-3).

4.9 As regards dependent claim 28 *Al-Hilali* does not expressly disclose, *wherein the desired levels of performance parameters are specified by the user through a graphical user interface* however, *Mason* discloses *wherein the desired levels of performance parameters are specified by the user through a graphical user interface* (Col. 2 lines 22-31 and Col. 2 lines 32-67 and Col. 3 lines 1-3).

4.10 As regards dependent claim 29 *Al-Hilali* does not expressly disclose, *wherein the desired levels of performance parameters are specified by the user through the graphical user interface manipulating heights of bar graphs shown on a display of the computer system* however, *Mason* discloses *wherein the desired levels of performance parameters are specified by the user through the graphical user interface manipulating heights of bar graphs shown on a display of the computer system* (Col. 2 lines 22-31 and Col. 2 lines 32-67 and Col. 3 lines 1-3).

4.11 As regards dependent claim 30 *Al-Hilali* does not expressly disclose, *wherein each bar graph indicates the desired levels of the corresponding performance parameter* however, *Mason* discloses *wherein each bar graph indicates the desired levels of the corresponding performance parameter* (Col. 2 lines 22-31 and Col. 2 lines 32-67 and Col. 3 lines 1-3).

4.12 As regards dependent claim 31 *Al-Hilali* does not expressly disclose, *wherein each bat graph also indicates the predicted level of the corresponding performance parameter,* however, *Mason* discloses, *wherein each bat graph also indicates the predicted level of the corresponding performance parameter* (Col. 2 lines 22-31 and Col. 2 lines 32-67 and Col. 3 lines 1-3).

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US Patent 7,058,560 discloses methods and an apparatus for predicting performance of a computer system (Abstract, Figures 1-6 and Col. 2-4).

5.1 Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dwin M. Craig whose telephone number is (571) 272-3710. The examiner can normally be reached on 10:00 - 6:00 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul L. Rodriguez can be reached on (571) 272-3753. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Dwin McTaggart Craig

PAUL RODRIGUEZ
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100

8/18/06